

## Stormwater Sample Methods

Stormwater can be collected from an installed stormwater station or as a grab sample. Stormwater stations consist of 3 Nalgene stormwater mounting kits, generally secured by cement stakes and cable, with a 1-liter Nalgene stormwater bottle within each of the 3 mounting kits for a potential total of 3-liters. A total of 30 stations were installed in the summer of 2021 (see **Figure X**); however, some stations were installed for a portion of the monsoon season. The samplers retrieved the Nalgene stormwater bottles from the mounting kit following a storm event, removing any sediment and debris surrounding the bottles when collecting the sample from an installed station. Grab samples were collected during or just following a storm event when the ephemeral washes were running. Grab samples were collected at various points (seen on **Figure X**) along the Santa Cruz River and Drainage 1.

To collect installed stormwater samples, the soil sampler followed the Hudbay Minerals Water Program Quality Assurance Project Plan (QAPP). To summarize, approximately 100-milliliters (mL) was poured into a beaker to collect field measurements. An Oakton PC450 or Oakton Con 10 series meter was used to collect pH, conductivity, and temperature measurements. Sample color, characteristics, quantity, event and sampling time, location, and observer names were also collected on the field data sheet. The water samplers wore disposable nitrile gloves, labelled the lab-provided bottle kit accordingly, and filled the lab-provided bottles. A bottle kit consisted of 1 – 1-L non-preserved bottle, 1 – 250mL non-preserved bottle, 1 – 250mL  $\text{SO}_4$  preservative bottle, and 1 – 250mL  $\text{HNO}_3$  preservative bottle. When volume was permitted, total organic carbon was collected in a 250-mL  $\text{SO}_4$  glass amber bottle for samples within Drainage 1. Total and dissolved metals were prioritized when sample volume was limited (less than 2-liters collected). When grab samples were collected, the non-preserved bottles were used to fill the preservative bottles to ensure the preservative was not compromised. Once the sample was collected, the samples were placed within a cooler and surrounded with wet ice to preserve the sample. A chain of custody was filled out and the samples were promptly delivered to a local laboratory for analysis.

Streamflow events resulting in stormwater samples occurred intermittently from July 4, 2021 through September 5, 2021. Stormwater sampling was conducted by Hudbay Minerals.